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Horticulture in the Far West.

Notes from Editorial Travel.

THE abundance of fruit in Missouri and Kansas is a constant topic of conversation and admiration by us all. In St. Louis, just as we were leaving, we were treated to luscious grapes and peaches as early as the 24th of July; and pears were in abundance on every fruit stand at strangely low prices. For instance, grapes were sold as low as 2½ cents per lb.; pears (Bartlett), at $1 per bushel; peaches, 50 cents to $1 per basket. The entire country around St. Louis, and particulary toward Kirkwood, is a succession of groves and vineyards, and the trees appear to hang loaded with unusual supplies of fruit. I notice that the trees bear at a very young age, fully one-half earlier than with our growers at the East. Apple trees we would at home consider too small, here are yielding a peck to a bushel to every tree, and in form and color such glorious beauties as would make a New York marketman smile. About ten miles out on the Pacific railroad, State of Missouri, Mr. Mason has a vineyard of twenty-five acres devoted almost entirely to culture for wine purposes. His crops will average about 12,000 lbs. per acre, or six tons. At the present low prices of grapes, if sold in bulk, he would average but 3 to 5 cents per lb., or $360 to $600 per acre, but very sagaciously he adopts another method altogether; with proper apparatus he converts all his fruit into wine, makes a good sherry, packs it in cases, and sells it at $9 per case. His six tons of grapes will yield him 600 gallons, worth $4 per gallon or $2,400 per acre. These figures of profit stagger us, for we have nothing to compare with them in the East, and we would doubt them were not the facts before us, and account books to prove sales.

In general the soil and climate of Missouri are wonderfully congenial to the production of all classes of fruit. Such peaches as we saw would, both in size and beauty of color, more than excel anything we ever knew from Delaware, while the

grapes are noted all for their size and sweetness. The farther westward we traveled, the more frequent appeared the fruit orchards; and at Hermann, situated upon the banks of the Missouri river, we appeared to have reached the most thriving fruit center.

Fruit boys surrounded us on every hand at the station, and offered their peaches at ridiculously low prices, two and three for a cent; at this price, we emptied more than one boy's basket. Beyond Hermann we noticed occasional orchards, but not as old nor as frequent in number as near St. Louis. The summers of Missouri are constantly warm, with slight change of temperature throughout the growing season; and fruits of every description are developed in the most extraordinary manner. The grape is most noticeable for its luxuriance, and vineyards are portions of every farm, all devoted principally to wine making. I understand that prices are now very low. Col. Colman, who has a large fruit farm, the crops of which he expected would yield him $30,000, will now yield him but $10,000 in consequence of low prices.

Fruits in Kansas.

The excursion party were favored with a most entertaining banquet at Leavenworth, offered by the Kansas Agricultural and Mechanical Association. At this banquet glorious specimens of Kansas apples were freely distributed over all the tables. In size, I know of nothing that would equal them in any fruit region I ever visited, while for beauty it would be impossible to find words fit for description. I cut them open, but eat only one piece, and laid the rest down, never to eat again—juiceless, dry and without flavor. I was more fortunate, however, in other specimens, but I could not help expressing the candid conviction that such large size had been obtained at the sacrifice of delicate quality. I also observed that some of the larger fruit, placed the day before on the chandelier for display, had thus early begun to rot, and, in some instances, one-fourth of the fruit had already spoiled. This augured badly for keeping qualities; still the varieties were early, not good keepers, and the room was quite warm, and heated with gas; so one must not judge a whole country from a single apple. The general character of the apples I saw and tasted, was fine in beauty of form and color, yet lacking in *juice*. The texture is mealy and dry. I suppose I did not have a good opportunity to taste the best varieties, it being too early in the season. In the afternoon of the next day, we visited the grounds of several fruit-growers near the city, the principal one being that of Marcus J. Parrott. Here, upon high bluff land overlooking the city, and distant about two miles, Mr. Parrott has some specimen trees, which showed the capabilities of the soil and climate. Quite a large number of pear trees were bending down, very heavily laden, and in point of color, size and lusciousness, equal to the best we have ever witnessed; at the side of the peach orchard is a small vineyard, mostly of Concord grapes. One vine was noticeable for its breadth and prolificness. It was only four years of age from planting, yet its arms extended about forty feet, bearing the incredible number of 400 bunches. Many of the bunches were completely spoiled in consequence of the cracking of the berries; and indeed this is quite a common fault throughout the entire vineyard, more or less berries on every vine

being thus spoiled. We attribute the cracking of the skin to too *rapid growth;* the vines grow exuberantly, and seem impatient of restraint.

In another part of the farm is quite an orchard of apples; these had been cultivated in clover, and apparently did not suffer from the grass occupying the same ground. The trees were young, and seemed to be but four to five years of age, yet were full of fruit of most beautiful color, and superior size. Kansas has certainly not been over-estimated in the value of her soil or climate for fruit.

At Dr. Stayman's the novelty was witnessed of an orchard *never pruned, and always grown in grass.* We must admit its success here, for the trees were overloaded with fruit, and the ground beneath was perfectly covered with fallen or decaying apples. The branches of the trees ran in every possible direction, wherever nature directed them in negligent confusion, yet such a sight of fruit is rarely witnessed by any orchardist in the country.

In other small farms and gardens near the city, we saw strawberry beds, grape vines and pear trees, all in good, thrifty condition. Considerable attention has been paid to small fruit, and it has proved quite a profitable occupation, growers realizing fifteen to twenty cents per quart, and the produce 4,000 to 6,000 quarts per acre. Pear trees grown in grass or out of grass are alike healthy and productive.

I saw few evidences of blight, and, to the credit of my friend Meehan, I must admit that every orchard or group of fruit trees grown West on the "*grass system,*" as far as I saw them, were admirably successful. I should disagree with him as to the application of this method in any portion of the East, but in the West, on the *rich prairie soils,* I find it is a useful specific, and is attended with very few inconveniences or injuries.

Kansas is very well situated for the cultivation of fruit. Most of the soil is of a limestone character, and in such countries fruit trees are always successful, often pre-eminently so, for the color of the skins, and the size and perfection of form, are unmistakable evidences. But it is able also to command good markets. Hitherto Denver has been supplied entirely from California, at extravagant prices, but Kansas, now close at hand, is able to come in and offer its choicest fruit at one-half the price, and still be considered very remunerative, while Kansas City, Lawrence and Leavenworth, and other local markets will take all the fruit raised at remunerative rates.

Horticulture in Colorado.

Denver is a remarkable market for fruit. I was told by reliable parties that fully $2,000 worth of fruit a day were sold there, and to judge from the frequency of the fruit stands, the estimate is not an exaggeration. Fruit stores are as frequent as news stands in the large cities, and often are seen adjoining each other several doors in succession. On one block fully half the stores were devoted to fruit. All of this fruit is shipped hither from California, and with its golden color, it is a most attractive sight. Nearly all kinds of fruit, plums, peaches, apricots, etc., are sold at the uniform price of twenty-five cents per pound. Pears are very fine, and will average two to the pound, or 12½c. each. Plums average five to the pound, and apricots three to four. Peaches same as apricots. The freight from Sacramento to Denver, is $750

per car load, which is the principal cause of their high prices; from Kansas City but $150.

Denver is a growing city, and business of all kinds thrives finely. Nearly all the inhabitants indulge in fruit, buying it as freely as we would candy or sweet things at home. Large quantities are shipped into the interior to the mining districts, and right in Black Hawk, the center of the most thriving mines and stamp mills, amid the crush of quartz and debris of mineral, I found a New York boy keeping a stand of California fruit, and who was so glad at our advent, that his joyful memory of the good, old days of the East, sufficiently impressed him to fill our pockets before he would let us go.

Gardening near Denver is successful, wherever the gardener can command a good supply of water. The Platte River is entirely unreliable, sometimes full, often dry. Ditches have been dug to the foot of the mountains, but occasionally the mountains are devoid of snow, and the supply is cut short, but this is not often the case. Strawberries are very productive and very profitable. A fruit-grower by the name of Dillon, who lives one mile from Denver, grows 2,000 quarts to the acre, and sold them at wholesale for forty-five cents per quart; they were then resold by the dealer at still higher prices. They begin at $1.25 per quart, and rarely go less than 60 cents.

Potatoes are the universal crop of the Territory; every one grows them and every one makes money out of them. Mr. Dillon has raised as high as six hundred bushels per acre, and sold them for four cents per pound; this is at the rate of $1,440 per acre. Can any Eastern gardener equal this? Of late so many potatoes have been raised that the price has fallen in some sections to two cents per pound wholesale, or $1.20 per bushel. Nearly every kind of garden vegetables, except corn, will grow here finely. Water-melons and cucumbers, as fine as at the East, are frequent and delicious; beets are superb. Peter Magnus, the most successful vegetable grower in the vicinity, brought to our hotel specimens that would average twelve to eighteen cents apiece, and potatoes that would weigh a pound. The soil being drift from the mountains is full of mineral matter, of which potash is pre-eminent, and only needs irrigation to set everything going with utmost vigor. Agriculture here is prosperous in the highest degree. Most of the energy of the people has been devoted to trading, mining and stock raising—little to agriculture. A few sagacious growers have felt that the soil would pay better returns than the uncertainty of the mines, and every one who has tried farming or gardening, has been succesful. Mr. Dillon said if he had forty acres he believed he could make $40,000 in five years and he would put one man to every acre, and grow garden vegetables entirely. Colorado cucumbers sell for twenty-five cents each, and potatoes at retail, 3½ cents per pound. The population of Denver is 8,000, and the increase of houses has been 33 per cent in eight months, still the area devoted to garden products does not increase in like ratio, and the supply is behind the demand. I know of no place with better opening for young, enterprising gardeners, farmers or tradesmen, than here. Wheat crops average forty bushels per acre, and oats sixty. Tomatoes are plenty, yet never sell for less than $1 per bushel.

An instance was related to us of two young men who had only a capital of $500

between them. They selected a small lot of ground on the road between Denver and Golden City, irrigated it, and planted in vegetables; they had good opportunities to sell, either to the miners as they passed along the road toward the mountains, or in the city of Denver itself. They were successful from the very first, and to-day, less than five years from the beginning, they own 320 acres each, and are making $5,000 per year. Cabbages are very profitable, and as an instance of their profits, I may state that Peter Magnus sold, from one acre, $1,900 worth in one season. Upon the ground of Mr. Bearce, President of the Colorado Agricultural Society, I saw quite a nice little vineyard of grapes, mostly Concord, three years old, generally in good health, still the fruit was a little cracked, and the berries considerably smaller than with Eastern growers. Horticulture is as yet an experiment in Colorado. Experiments are but one or two years old, and but little definite is known; still progress is very encouraging. My readers must remember that Denver is nearly 6,000 feet above the level of the ocean, and located upon a treeless plain, with no green thing in sight save the vegetation of private gardens. To grow vegetables under disadvantages like this is success indeed. We observe in private grounds quite a large number of ornamental trees planted. The cottonwood is especially pre-eminent, and uniformly a vigorous and quick grower. It must, however, be irrigated, or it will not live. Apple trees have been planted in some grounds, and we must admit this year's growth displays the handsomest and smoothest bark we ever beheld on any apple tree, young or old. If protected by boards from the hot rays of the sun from the South, they will stand the winters admirably; the protection needed is not from the North, but from the South, against extremes of heat.

Gardening, in Colorado, I look upon as successful already, but the culture of standard fruits is very doubtful and risky. The judicious planting of trees everywhere, and the raising of groves or belts of timber, may sensibly ameliorate the climate and help fruit culture very materially.

H. T. W.

DENVER, *Colorado Territory.*

A Beautiful Flower Farm.

THE following account of Mr. C. L. Allen's flower farm, near Queens, Long Island, is given by the editor of *The Observer*. Most of our readers know, that this is the largest flower farm in this country, devoted specially to lilies, gladiolus, tuberoses, and bulbs, generally. The grounds occupy about fifty acres of fertile garden soil, very fine and mellow:

At one corner of the farm we found an extensive plat of pæonies, embracing over one hundred and fifty varieties, all in full bloom. The sight was gorgeous. Almost every hue and color—from crimson to white, "ring streaked, speckled, spotted and grizzled"—beamed forth from the rich velvety petals. Some of the finest lilies that

Japan affords find a congenial home in this beautiful soil of Long Island, and some that rarely perfect their seed, developed a full crop last season; and the kernels were allowed to fall at pleasure into the bosom of mother earth, where they remained during the winter, and germinated the former part of the growing season. Tuberoses and gladiolus, and extensive varieties of other flowers, flourish here in beauty by the acre. The leaves of every flower and tree seemed more like thin leather than the breathing organs of growing plants, showing, conclusively, that there is a wonderful congeniality of both soil and climate to the production of both flowers and fruit.

Value of Stable Manure.

Large quantities of coarse manure are obtained from the city by railroad, which is dropped from the railroad cars about half a mile from the farm. The manure costs, delivered at the station, over $1.50 per tub, equal to about eight bushels, which swells the expense to some five or six dollars per cord for coarse manure. Tillers of the soil understand the great value of manure so well that they feel warranted in paying the enormous prices alluded to. Yet, much of this high-priced fertilizer is not half so valuable as the tons upon tons, which a great many farmers, remote from large cities, allow to waste away every season. Flowers, as well as garden vegetables and field crops, need the stimulating influences of rich manure; and horticulturists and floriculturists have learned, that no fertilizer is preferable to good composted stable manure for flowers, vegetables, or for fruit trees. The flower plats are thoroughly enriched with some sorts of fertilizing material. Mr. Allen esteems red clover as a fertilizer of the first quality for all sorts of flowers.

How to Make Large Flower Baskets.

In several places in Mr. Allen's grounds were large flower baskets resting on the top of a stump of a tree, which had been cut off three or more feet from the surface of the ground. A few stakes driven into the ground, or a small log placed on one end, would answer the purpose of a stump. A large wire basket was then made in the following manner: A wire ring about four feet in diameter was made of a rod—say one-fourth of an inch in diameter—which is secured about one foot above the point occupied by the bottom of the basket. Another ring about one foot in diameter is prepared for the bottom of the basket. Then smaller wires—say one-sixteenth of an inch in diameter—extend from the small ring to the large one, for the sides of the basket. The side wires are all cut off a given length, with an open eye at each end to receive the two rings. The side wires are bent of a uniform curve, so as to give the basket a swelled form. As fast as the open eyes of the side wires are attached to the bottom ring, and to the ring that represents the rim of the basket, the ends are bent around with pliers. With a few dimes' worth of galvanized wire one can make a large basket in about one hour, that will last many years, especially if it be housed after the growing season is over. These large baskets were lined with moss, filled with rich earth, and were the receptacle of several species of beautiful flowers, all in full bloom. Mr. A. estimates that he has now growing over 750,000 tuberoses, and an unknown number of Japan lilies.

A Choice List of Azaleas and Rhododendrons.

THE finest collection of Azaleas in America can be found at the nurseries and greenhouses of Parsons & Co., Flushing. Those kept in the greenhouses were in full bloom in April, displaying a most gorgeous combination of colors. These were the *Azalea Indica*—a class of plants specially adapted for conservatories. Mr. Trumpe, the skillful propagator, who loves his Azaleas as dearly as a child, gives us a list of the very best varieties named below. Those *starred* are of extra selection out of a list of 150 varieties:

**Adolphe de Nassau*—Large, rose color; a free bloomer, and a standard variety.

Amarantina—Rosy purple.

A. Borsig—Double white; fine.

*Bernard Andrea—Splendid, rose color; very large bloom; unusually fine.

**Coloris Novo*—Superb crimson.

Criterion—Bright salmon; distinctly spotted.

Delicata—Rose color; every one likes it; very popular with amateurs.

**Duchesse de Nassau*—Large, dark rose; shaded violet.

Eulalie Van Geert—Large, carmine; variegated.

*Flag of Truce—Double white; extra fine form.

*Gem—Dark salmon; exquisite; clear.

Grande Duchesse de Bode—Large, salmon and rose; fine form.

Marie Vervaine—Variegated; crimped; extra white stripes.

Minerve—Scarlet; extra profuse bloomer.

Modéle—Very fine, rose. Modéle de Marque—Splendid form, rose. Both of these are indispensable for every collection.

Prince Albert—Large flower; rose; old, but has a splendid habit of growth.

Punctulata — Splendid, variegated; early bloomer. Punctulata omnicolor — Splendid, variegated; early bloomer. Both valuable for early forcing purposes.

*Reine des Roses—Red rose; extra bloomer.

*Roi Leopold—Splendid form; scarlet and crimson on the petals.

*Rosea elegans—Fine rose; extremely brilliant color; overflowing with bloom.

*Souvenir du Prince Albert—Rose and white; a new and splendid type, with variegated petals.

Stella—Scarlet, with purplish eye.

Vittata crispiflora—Variegated.

Vittata punctata—White, spotted with rosy purple.

Ghent Azaleas.

This is a class for lawn decorations, or borders in the background, for a brilliant show. They are very hardy—thrive in any good, warm, loamy soil, and are perfectly overflowing with their exquisite bloom in early June. Here is a list of choicest varieties:

Aretheusa plena—Dark orange.

*Baron George Pike—Large, orange.

Bicolor—Orange; yellow and white; superb.

Calendulocea coccinea—Orange, scarlet.
Calendulocea elegans—Fine; orange, scarlet and white.
Coccinea grandiflora—Scarlet; larger than above.
* Concinna—Dark orange.
Cardon—Light orange.
* Cruenta—Scarlet; fine.
Elegantissima—Pink; late.
* Graf von Maran plena—Fine, rose.
Honneur de la Belgique—Crimson, dark.
Lateritia stricta—Salmon.
Monstrosa conspicua—Orange, scarlet.
* Narcissi flora—Splendid, yellow.
* Ne plus ultra—Extra, orange.
Penicellata stellata—Straw color and salmon.
Plumosa—Light orange.
Pontica bouquet de flora—Pink and white; fine.
Pontica globosa—Yellow, with white center.
Pontica imperialis—Yellow; large.
Præstantissima—Large, orange.
* Punicea—Crimson, scarlet.
Radicans—Crimson.
* Viscocephalum—White; very fragrant.

Azaleas for Window Gardens.

The use of Azaleas for window culture in pots has, as yet, not been often referred to by our horticultural writers; yet, the idea is a most pleasant one. What can be more delightful than an entire window filled with thousands of crimson blossoms, from pot after pot, or raised stages toward the top? The only thing necessary in their culture is to provide a suitable soil. The best for this purpose is a mixture of two parts loam, rich, vegetable matter; two parts rotten peat from the swamps; one part sand. Take good care for perfect drainage, and use no manure. These are all the directions necessary. These plants during the winter should be put in the cellar. About the beginning of February they may be brought nearer the light, and a few weeks afterward carried up to the window garden. Here they begin to bloom at once, and last about three weeks; some of them six weeks. After they have done blooming they may be removed, and new ones be brought up again from the cellar, and thus the blooming season is extended over several months. The following is a selected list of those most suitable for window purposes:

Amaena—Very early.
Amarantina—Rosy purple.
Belle Gantoire—Rose and striped with white.
* Charles Quint—Rose.
Criterion—Bright salmon; distinctly spotted.
Delicata—Rose.

Exquisita—Variegated.
Indica alba—White.
* Fielden—White; very early.
* Minerva—Scarlet; profuse.
Modéle de Marque—Splendid form; rose.
Grande Duchesse de Bode.
Iveryana—White, striped with rose.
Perfection—Rose; good form.
Vittata—Variegated.
Vittata crispiflora.
* Punctata—Splendid, variegated.
* Punctata omnicolor—Early bloomer.
* Narcissiflora plena—Six weeks in bloom.
President—Scarlet.

List of Rhododendrons.

We are also indebted to the same source for the following selection of choicest, hardy varieties:

Album Elegans—A large, white flower; plant exceedingly well adapted to standards.
* Bertie Parsons—Lilac blush.
* Bicolor—Dark rose color.
* Blandyanum—A very bright cherry; one of the best.
* Candidissimum—The best pure white.
* Everestianum—Rosy lilac, with crimson petals and yellow eye; very fine.
Giganteum—A rosy crimson with large truss.
* Grandiflorum—A deep rose, inclining to crimson; is an abundant bloomer, and one of the most valuable sorts.
* Lee's dark purple—The very best of its color.
* Purpureum elegans—Purple, fine and showy.
* Roseum elegans—Rosy tinted; fine.

The above lists will be found valuable for future reference by all who intend to plant—as the selection has been carefully pruned down to ten of the very finest of each class. No one who has planted either Rhododendrons or Azaleas freely, has ever failed to reap abundant satisfaction.

Pencil Marks by the Way.

BY OCCIDENTALIS.

A Western Strawberry Report.

I HAVE two cases of strawberry culture here in the west, which I desire to report. Probably neither of them present any extraordinary points to experienced fruit growers, but they are certainly remarkable as showing the difference between different modes of cultivation. The first case proves that a little care and skill, properly applied, will produce favorable results; the latter demonstrates that more care and skill will pay in a proportionate degree. They both came under my own observation, and I am familiar with the mode of culture in each case.

Neighbor A. had a tract of one hundred and twenty square rods of ground—just three-fourths of an acre. The soil is a light hazel loam, overlying a limestone clay, and with a small admixture of sand. It had been cleared and cultivated about two years. This was planted, in the spring of 1870, with Wilson's Albany plants, at distances of about eighteen inches in rows of three and a half feet apart. The culture consisted of one or two dressings with the hoe and as many plowings during the summer, and no mulching or other protection during the winter. The first portion of the summer was extremely dry, hence they made no runners till late in the season; but the rains of July and August started them vigorously, and the tract became nearly covered with fine healthy plants. In the spring no other attention was given them than a slight hoeing and a pulling of the weeds.

From this tract he picked and marketed fifty-six bushels, and consumed at home about four bushels—in all 1,920 quarts. This is at the rate of eighty bushels per acre.

The fruit was sent to market (unassorted) in the Beecher quart baskets, and sold at prices ranging from twenty-five cents down to eight cents per quart—averaging a little less than ten cents. The picking cost two cents per quart.

Neighbor W. had a small tract of five square rods—just one thirty-second part of an acre. From this he picked *three hundred and fifty quarts*—or seventy quarts to a rod—footing up to the respectable sum of three hundred and fifty bushels to an acre of ground. Whether the same ratio could be maintained for a larger tract, is a question. Yet it would seem that what can be done on one rod or on five rods of ground, could be done on ten or a hundred, provided the same care and culture is given.

The culture given by Mr. W. was different from that given by Mr. A., in that it was much more thorough during the first season after planting, and that the plants were well mulched with forest leaves in the fall. The culture had given them a good supply of roots, and brought into being the germs of numerous fruit stalks; the mulch of leaves being just what was requisite to maintain them in the best condition. It is hard to conceive that different degrees of culture would produce such different results; yet so it is—as the soil in the one case was very similar to that of the other.

One other fact should be named—*the ground of Mr. W. had been sub-soiled*, that of Mr. A. had not. The first case shows quite a satisfactory result, especially for this section, where fruit culture has not been reduced to a science.

If, however, it can be shown that an expenditure of twenty or twenty-five dollars in labor and mulching material, for each acre, can produce so much difference in the result and the consequent profit, it certainly is a weighty argument in favor of that expenditure.

A word on mulching material: Forest leaves are undoubtedly the best; probably cornstalks are the next best. Straw, of wheat, rye or oats is first-rate simply as a mulch, but is objectionable on account of the weed and grass seeds it contains. Bagasse, from the cane mills, is liable to smother the plants.

Banks of the Mississippi, June, 1871.

Among the Flowers; or, Gardening for Ladies.

BY ANNE G. HALE.

VIII.

Dried and Preserved Flowers.

THE perishability of flowers is a great hindrance to their more general use as articles of personal adornment, or for home decorations. Many times are miserable counterfeits of silk, cambric and *paper* substituted for the real presentment, because even the most hardy soon wither when subjected to much handling, or to a close atmosphere. And then flowers cost so much — every blossom represents a great deal of time and money, even if we raise them ourselves — that few persons can afford the indulgence very often of such short-lived ornaments. If, like pictures, they held up their bright faces week after week, and month after month, with no diminution of their attractions, the expense would not deserve a moment's thought. But, when beside this, we incur the sadness of witnessing their rapid decay, we are apt to reflect a good while before putting them to such use.

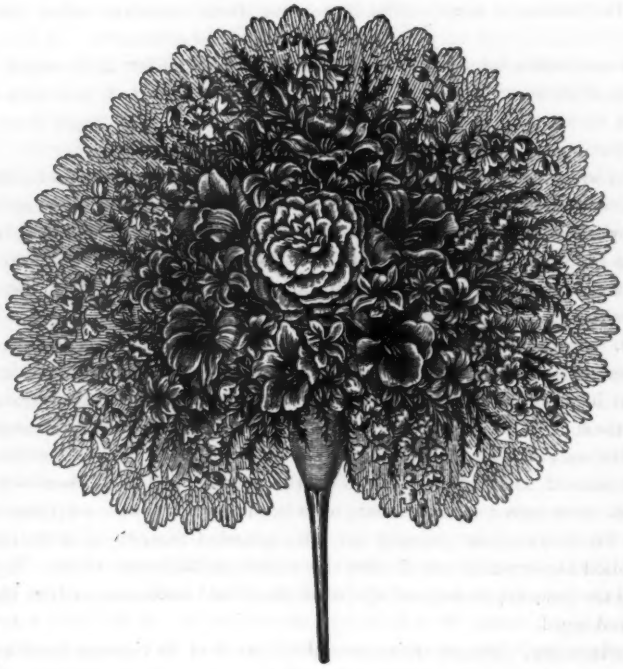
Flowers, we all know, do not sequester their charms for the sole benefit of the individual who possesses them, even during their brief existence, so when on extraordinary occasions, by dint of economy in other matters, we do gratify our companions as well as self by surroundings of floral beauty, we would fain retain a *souvenir* of the event, as many a heap of shrivelled and brown petals, just ready to drop to dust, that once were fresh and fair, hoarded carefully among valued relics, can attest. Again, when love and friendship find most fitting expression through the voiceless lips of flowers, how reluctantly they are yielded to decay — how much is done to lengthen to the utmost their fleeting lives; and when all traces of life have left them, how, like so many mummies, they lie in their lonely sarcophagus — the time-stained and tattered letters that accompanied them. And when the myrtles and white lilies of death that have lain in the ice-cold hand now mouldering under the daisies, made sacred by that touch, have been reverently rescued from the grave for a few brief days, how jealously are they guarded from harm, with what affectionate solicitude — almost as if they were the embodiment of the departed — expedients are resorted to for setting far-off their final relinquishment to the fate of all earthly things!

But this iron law, that, governing mortality, has laid its rigorous hand so heavily on the floral world, may, in a measure, be set at defiance; just in the prime of their loveliness, bud and blossom, leaf and tendril can be so changed in tissue, and yet retain their original appearance and individuality, as to be in a certain sense incapable of decay.

Flowers prepared in this way are in great request for floral decorations of all sorts in England, and the fashion is already on the rise in this country. Florists have collections of dried and preserved flowers on sale, or, if a customer prefers to furnish the flowers, will get them done to their order by some person in their employ. But high prices are charged for this work, twenty-five dollars and upwards are often paid for preserving a funeral wreath. And yet it is not an expensive nor a difficult pro-

cess. Any lady will find it an agreeable diversion, as fascinating as painting, and less unhealthy; while the cost of materials, not counting the price of the flowers, is trifling.

The first method of preserving flowers is by preparing them to present a flat surface, with their colors undimmed, resembling a painting. This has been a favorite style of making funeral wreaths and bouquets durable mementoes of bereavement; and, until the last few years, the only method practiced in this country. Dried in this manner, flowers are employed in Europe for many purposes of ornamentation.



Our engraving shows a lady's fan, to be used at the theatre, or in the ball-room; when not in hand, to decorate the chimney-piece. The flowers upon this are preserved in a flat position, and are fixed with gum tragacanth to the material of the fan. The best material to arrange dried flowers on is card board. It may be covered with silver paper, or delicate black or white lace, according to fancy. To this the flowers are gummed in any design; this fan simulates a bouquet. Green leaves, except those of the laurel family, lose some of their brightness, even with the best management, and, unless resort is made to artificial tinting of their surface, cannot be used with preserved flowers. Hence, lycopodium and moss that retain

their brilliancy so long, are the verdure most frequently introduced, as little as possible being admissible. The design completed should be set in a dark, airy room to dry for a day or two; then lace of the same sort that lies beneath the flowers must be spread over them and gummed at the edges; a neat edging of the same, or a small silk fringe, being affixed in the same manner, as a finish.

The requisites for drying flowers to present this uniformly flat surface are a quantity of clean white paper, light and soft, with an undressed face (such as cheap books are made of), two covers of wire cloth (sheets two feet long and one and a half feet wide, their edges bound with a narrow strip of zinc), two stout leather straps with buckles, a paper knife, or a small wooden spatula and a camel's hair pencil.

The flowers must be freshly gathered; buds and half-blown blossoms are best. When wide-open flowers are used it must be in the first hours of their expansion. A thick bed of smooth layers of the paper must be made, resting upon one of the covers. For small flowers, half an inch deep of the layers is sufficient; for roses, japonicas, and other large and double flowers and their buds, an inch will be needed; this is to absorb the moisture. Upon this bed lay the flowers, without crowding, in a natural position, using the paper knife and hair pencil to arrange the petals, the sepals and the stamens and pistils with great care. If possible, none but flowers of similar size and appearance should occupy these drying sheets at once; never admit but one color at a time, else there is danger of dimness or discoloration. When all are smoothly arranged lay a bed of the same thickness of paper upon them, place the other cover, and make all tight and firm by means of the straps and their buckles. Suspend this in the sun and air — out of doors is best; if in a light breeze the drying is hastened. The smaller flowers will dry in six or eight hours of summer sunshine. The larger often require two days. They should not be removed from the drying sheets till all moisture has left them. Then take them carefully with the paper knife or spatula to a clean sheet of stiff white paper, and keep from dust and moisture till they can be wrought into the intended design. The outline of the design should be drawn in pencil upon the card-board it is to occupy. Within this, brush lightly gum tragacanth of the consistence of mucilage. Place the flowers thereon, and gently touch them here and there with the tip of a dry camel's hair-brush to affix them. Put no gum upon the flowers or the leaves, or other verdure that accompanies them; the gum must only be applied to the card-board. When glazed and framed these floral designs make handsome cabinet pictures.

Flowers dried in the fullness and symmetry of natural form, with their colors as brilliant as when living, are available for all sorts of ornamentation; for the most experienced eye can scarcely detect the least difference between them and freshly gathered blossoms. In all their flowing lines of grace, leaflet and bud curving and drooping as when attached to the parent stalk, they may be seen in the accompanying engraving, where, with crystallized grasses commingling their lustres, an elegant *coiffure* — ladies' head-dress — is represented. It is a very tasteful and becoming affair, designed for evening full dress.

The articles needed for drying flowers in rotundity of form are, river, lake or sea sand (this is called white sand, it is sometimes of a bluish grey tint), a wire sieve with a wooden cover to fit its base, a paper knife and a camel's hair pencil. The flowers for this method of preservation, as for flat drying, must be freshly plucked, and without dew or any other dampness. Everything about this work must be thoroughly clean. The sand must be rubbed and rinsed in clean water till the water flowing through it is as clear as that from a well. Then put it in clean crockery dishes to dry. It must be perfectly dry and just blood-warmth when the flowers occupy it.

When the sand is of the right temperature, close the cover over the base of the sieve, and pour it in till it fills the whole space beneath the wire cloth. Place the flowers in an upright or natural position by inserting their stems in the apertures of the wire-cloth till they rest firmly in this sand below. Do not crowd them, nor, if sprays or panicles are dried, let the flowers overlap each other to injure their form. Fold a sheet of stiff white paper to make a cone-shaped tunnel, and pour the warm sand through this around and under and within the flowers. The cone should be folded to give the smallest possible stream of sand, and it must be poured with great care and gentleness, especially within and among the heliotrope florets, and the heaths and other small flowers. It is a slow and careful operation. Within the bells of mahernia, among the spireas, deutzias, acacias, verbenas, lantanas, bouvardias, and the like, special attention must be given to cause the sand in falling to fill all vacancies and to support every portion of the flower correctly. The sepals and corolla of fuchsias require nice management, or, rather, patience enough to allow time to pour the sand properly. Roses and japonicas also must have a particular pains given to preserving the curves of their petals; sometimes the edge of the paper knife or the tip of the hair pencil is needed to hold or raise them while the sand is poured under and upon them to effect this. After filling in and under and around the flowers, sand must be sifted over them, warm, to the depth of half an inch. Then set the sieve where it will keep the temperature of 70° steadily, till the flowers are dry. The smallest flowers will dry in six hours; but the large, fall sorts, with thick petals, require ten, twelve or more to get thoroughly dried. For this reason those of about the same texture and size should occupy the sieve at one time. When it is reasonable to suppose that the flowers are dry, take the cover from the base of the sieve, and the sand will fall through the wires, leaving them as perfect in form as those in the bouquet here pictured, their colors as fair and bright as when placed in the sieve, yet dry and rigid. Leaves should be dried entirely by themselves, the thin and delicate sorts alone, because they are soon siccated; and the

thicker ones also require to be treated separate from others. The foliage of the myrtles and laurels give the best satisfaction; the more flexible and succulent species lose some color and often need to be superseded by moss or lycopodium.

When both flowers and leaves are dry they may be clustered and tied like fresh ones in garlands, crosses, bouquets or any other device; and as they need no moisture to keep them in fair and life-like appearance, are very desirable as grave decorations. In our illustration grasses are lending their airy grace to the group. A fall of lace paper to finish the setting gives elegance to this form of bouquet, which would serve admirably for a mantel vase, as well as for the hand, and could be made a handsome ornament for suspension. Baskets of flowers dried in this manner are very effective hanging in an arched doorway or window; and nothing more beautiful can be designed for the dinner-table than an epergne filled with an assortment of these flowers tastefully arranged; while as wall-decorations, bouquets or wreaths composed of a handsome variety, well contrasted, gummed to cardboard and then glazed and framed, lend a summer-like aspect to any apartment, and are a perpetual delight.

Preserved flowers, properly speaking, are these dried flowers coated with wax, stearine, or paraffine. They closely resemble wax-work, but are less expensive. Of course the talent that is required for success in making wax-flowers is not needed for this work; only a certain tact and skill, gained almost wholly by experience, in manipulating the flowers, and in using the coating material.

When flowers are to be *preserved* they must first be dried in warm sand as directed above. Then melt white wax, stearine or paraffine — paraffine is preferable — to a fluid state, in a clean bowl, which rests in boiling water. Keep the water hot over a spirit-lamp, gas-jet or the stove, and then the fluid will be in right condition. Have the flowers conveniently near, in a flat dish, on which they can lie while the calyx and under part of their corolla is coated; apply the melted paraffine with a camel's hair pencil, with light, careful touches and strokes. When these portions are nicely covered — just as little as possible of the coating must be used, yet all must be covered — take the flower by its stem in your left hand, and with the pencil drop the liquid paraffine in and about the various divisions, letting it flow as it will, but not enough to obliterate the finer parts; and then with quick, gentle touches finish the remainder of the flower. Proceed in the same way with the buds and the leaves

When the color of the leaves is unsatisfactory, some persons color a little paraffine with paris green, and coat them with that. There is danger of making flowers and leaves too clumsy if the paraffine is not in a fluid state. Be sure to guard against this; and take care not to dim or hide the colors by too liberal applications of the fluid; there is less danger of this with paraffine, than with wax, because it is of a more transparent nature.

Our engraving represents a group of these flowers arranged as a table decoration, with a fall of lace or of lace paper to droop over the edge of the epergne. They are very handsome for this purpose. Harps, crosses, wreaths or bouquets, composed of these preserved flowers, are very beautiful, but they need shielding or screening from the dust as much as wax flowers do. It is best to enclose them within a frame with glass front. Even with blossoms eternalized in this way lycopodium and moss must be used to fill vacancies between and among the flowers and buds.

Although when nicely done, these *preserved* flowers are elegant, and can withstand the influence of moisture, drought, cold, and a good degree of heat, yet those who prefer nature in her simplicity, will choose only the process of drying (the second method) for eternalizing their floral treasures; which, if not perpetuating their charms for a lifetime, as the last method does, yet renders them permanent for several years,

and with careful shielding from changes of the atmosphere, by enclosure in an air-tight frame under glass, they may display their beauty for a still longer period; so that mother's bridal wreath may challenge comparison with Mary's, and Tom's button-hole bouquet may be stolen from his grand-mother's Mayday garland.

Fruit at the West.

WE have had a very fruitful season. Although the apple crop has not been a large one, it has been more than an average, and the fruit unusually fair and free from worms. This is the reverse from what we might have expected, last year and this being unusually warm and dry seasons, we might have expected such seasons productive of insects. I have pastured my orchards with hogs, but my neighbors' orchards not pastured, are also comparatively free from the codling moth. It is observed by most of us, that whilst we have a full crop of most of our summer varieties, many of our winter varieties are quite short.

I am of opinion that we Western men have been too fraid of high cultivation of our orchards. It is evident that our fruit trees do best on our thin oak soil, and if the rest of our trees could talk *they would tell us why*. Let us get down to the root of the tree and see what is the matter. This will be a subject of further investigation by me, and my conclusions will be only suggestive and not of binding force on the rest of the world. Suffice it to say here, that the roots, not only the "spongioles," but all the rest of our fruit trees must have a certain degree of compactness, porousness and freeness, touching every part of the bark of the roots, and giving moisture to every part of the roots as well as the "spongioles."

Of pears, I never saw a more beautiful crop, nor finer fruit, and so early that our Bartletts are nearly gone the sixth of September, and our White Doyennes and Seckels ripe. My neighbor, Gen. J. G. Gordon, was bragging about his large Bartletts weighing 8, 12, and one up to 15⅔ ounces; I went home and took down from the shelf a Flemish Beauty, in a decaying state, and some of the juice lost, and it weighed 15½ ounces. This weighed fully a pound when perfect.

The market price of pears in the city of Muscatine, is $3 per bushel for best; $2 for common; apples 30 to 50 cents; grapes 3 to 4 cents per pound.

Grapes.—We are surfeited with grapes; the air is actually perfumed with their fragrance as we pass along the roads; Concords mostly, though we have some other varieties doing quite well. The Northern Muscatine appeared in our market quite plenty, and sold readily a little higher than Concords, for its sweetness, which outdoes its fineness a little. Some of the Rogers are doing well; No. 15, No. 4 and Salem, I am well pleased with. No. 1 is now ripening the best of all, and its usual season was as early as September 10, but in this climate it is usually too late. The Ives is very promising for an early grape, seven to ten days earlier than Concords. I have fruited the Martha this year, and am well pleased with it.

SUEL FOSTER.

Muscatine, Iowa.

Horticulture on the Delaware Peninsula.

IN the middle of August, a small company of eastern horticulturists spent a week very pleasantly in a visit to some of the fruit farms of the Delaware Peninsula—among them were Charles Downing, Geo. Thurber, P. T. Quinn, William Parry, Randolph Peters, and Howard M. Jenkins of the *Delaware Tribune.*

The first fruit farm visited was that of Randolph Peters; three miles from Wilmington is his residence and also his nursery, but his orchard is located at Newark, about fourteen miles to the west. Here upon the slope of a hill is a pear orchard of ten thousand trees, the soil is stony, yet well drained, and position elevated overlooking the county southward and eastward. The pear trees were planted nine years ago, about half standards and half dwarfs, the standards twenty feet apart, and a row of dwarfs every ten feet. The spaces between the trees have been cropped with corn regularly every year since the orchard was planted, and well manured with rotted barnyard manure. Thirty or forty varieties are grown, but the most successful varieties were Buffum, Seckel, Bartlett, Duchesse and Lawrence. The trees have done admirably, and with such apparently negligent treatment (yet Mr. Peters says it is the best to prevent blight), they have out-borne themselves with heavy crops of fruit yearly. The crop of Bartletts would average, tree after tree, twelve ounces to each pear, and in the opinion of Mr. Quinn, who had seen the same varieties in California, nothing there would equal these Delaware Bartletts in size and beauty. The Lawrence pear, both in growth of tree and size of fruit was thought to be unusually successful, trees of six years' age fully showing as vigorous a condition and as large a size as those trees of twelve years' age nearer New York.

Pear Orchard on the Grass System.

On the grounds of the Agricultural College Farm at Newark, is an experimental farm and fruit garden under the direction of Prof. E. D. Porter. Here is a pear orchard of one thousand trees, planted ten years ago. The ground was very thoroughly prepared and trees rightly planted. Since that time they have been cultivated entirely and literally in correspondence with the system of "*grass cultivation,*" advocated in *The Gardener's Monthly.*

The entire orchard was permitted to run into grass. It was cut several times every year, and allowed to rot on the ground. In addition to this, a good supply of well-rotted barnyard manure was spread over the land as an annual top dressing, and pains taken to secure a good, vigorous, healthy growth as far as possible.

But notwithstanding all this, the trees have in large measure died. More are dying, and of those that are left, the fruit is small and inferior. Prof. Porter considers the "*grass system*" a failure for any orchard. Ten years of experience entitles him to speak with authority, and he will plow up the soil this Fall with hope of saving the balance left alive. There is a fine vineyard in connection with the farm, and out of a large number of varieties planted, the best are the Concord, Hartford Prolific and Clinton.

Large Peach Farms.

Near Middletown several large peach farms were visited. The farm of the late Cantwell Clark contains one thousand acres, two hundred and eighty of which are

devoted to peach orchards, and the balance to corn, wheat and grass, all managed entirely by a young lady only twenty-one years of age.

The farm of J. T. Ellison contains a peach orchard of one hundred acres, trees varying from two to eighteen years of age. Mr. B. T. Biggs, U. S. representative to Congress, has orchards containing thirty-five thousand trees. These are divided over four farms. Most of them are rented to tenants who keep the farms in excellent order. While the present low prices of peaches were discouraging most growers, Mr. Biggs still felt hopeful, for in his opinion, a profit of but fifteen cents per basket would net the grower as much money per acre as hay or grain farming.

The farm of J. B. Fennimore, which for years has been one of the largest and most successful and most profitable in the State, was this year only bringing him a profit of but fifteen cents per basket for his fruit, and most of it was his choicest.

The orchards near Middletown are in fine condition, the land being heavier and trees more productive than at points further south, but not as finely colored, nor as early as at Dover. The peaches are picked from the tree by laborers from Philadelphia and Baltimore. Their wages are $1 to $1.25 per day, and board. Good pickers will average from forty to fifty baskets per day. Some prefer to pick by the basket, and receive five cents per basket, and make $2 per day, others $3.

The farm of Samuel Townsend, near Smyrna, contains four hundred acres, and he ships usually three cars of fruit per day.

Near Smyrna are the farms of four brothers, George Cummings and three others, who have been most successful in the management of their fruit, and have accumulated large fortunes.

On the farm of Robert Cummings is a fine apple orchard, the leading variety of all, "English Red Streak," having an unusual quantity of fruit upon it. This apple is one of the most popular in the State. Mr. Peters thinks the very early varieties profitable, such as the Golden Sweet, Early Harvest, and Red Astrachan. These four brothers have together one thousand acres, and one hundred thousand peach trees. As an instance of the fluctuation of prices, one of the brothers (as stated by Mr. Quinn) shipped fourteen hundred baskets one day to market, and when the account of sale was returned to him, found only a net profit of three cents per basket. Owing to the low prices, thousands of bushels were not picked and left to rot on the trees in nearly every orchard on the Peninsula. One grower near Mount Pleasant lost ten thousand baskets of peaches in this way.

At Round Top, Md., is the farm of Jno. Harris, who has one of the largest peach orchards in the United States—*one thousand and thirteen acres*, nearly all in full bearing. All the crop is *canned* on the place. The canning factory is located in the center of the orchard, and fruit brought right to it from the pickers. Five hundred women and girls are employed during the busy season, assorting and peeling and packing. They earn $6 to $10 per week. They get fifteen cents per basket for peeling and quartering the peaches and removing the pits. The daily work is about four thousand baskets, which make thirty thousand cans, and before the close of the season, Mr. Harris expects his crop will fill one million cans. The canned peaches are sold in Baltimore and Philadelphia, bringing at wholesale, $1.25 per dozen cans

of two pounds each, which is very low, the usual price being $2.75 per dozen. Cans holding three pounds sell for $1 more per dozen.

Osage Hedges.

Nearly all the farms are surrounded with Osage hedges, and the roads for many miles are bordered on either side with some specimen hedges of enormous size—all of them beautiful in extreme, especially in midsummer, when the *Scarlet Trumpet Creeper* opens its gorgeously crimson-colored flowers and runs over the hedge in its wildest profusion. At Massey's Cross Roads, Md., on the farm of D. J. Blakiston is an Osage hedge of five miles; the annual cost of trimming and keeping in order being but $26. This gentleman has a pear orchard of eight hundred trees, planted seven years, the fruit from which last year sold for $750 net; but it was suffering badly from the frozen sap blight and fire blight. Other orchards in the neighborhood were suffering so much from the same cause as to discourage all further planting.

The Biggest Peach Orchard in the United States

Is that of Col. Edward Wilkins, who now has THIRTEEN HUNDRED AND FIFTY acres, with ONE HUNDRED AND THIRTY-SIX THOUSAND TREES. The peaches from his orchard, which is located near Chestertown, Md., are packed in crates and sent to Baltimore by the Col.'s own steamboat, to one canning factory who contracts for the whole crop. In 1869 they netted him $1.10 per crate; this year only thirty-five cents, or 17½ cents per basket. Yet at this price he esteems it more profitable to grow peaches than to grow corn at the rate of sixty cents per bushel for a crop of sixty bushels per acre. Some of his trees, three years old, yielded him two crates to the tree. This is unusual, for a basket per tree is a fair average. Each crate holds two baskets.

A Profitable Peach Orchard.

A well known peach grower near Chestertown, favored the party with figures of his gross receipts from a peach orchard of three hundred and twenty-five acres, during a term of nine years. Trees in this orchard in 1862, were then but four years planted.

1862,	gross receipts	$12,600 00
1863,	"	32,340 00
1864,	"	32,339 00
1865,	"	48,042 98
1866,	"	16,804 00
1867,	"	9,989 00
1868,	"	1,350 00
1869,	"	30,429 00
1870,	"	22,000 00
In these nine years, value of brandy made		15,150 00
Total		$231,043 98

More than half of this went for expense of marketing and gathering, the rest was profit.

The trees in Delaware orchards are usually planted 20 by 20, giving 108 trees to

the acre. The third year from planting they begin to bear, and continue fifteen or twenty, if well cultivated. Once a year they are wormed and branches are thinned out after each crop. Shortening or pruning the tops is practiced only among a few first class growers, who believe in it; and some are trying the plan of growing low heads, which is not fancied by the majority, yet it forms a self-protection.

Pear Orchards.

Mr. R. S. Emery, near Chester River, Md., has a pear orchard of six thousand trees. Four rows of Duchesse, six years old, are stated by Mr. Quinn, to be both in growth of tree, size, uniformity and quantity of fruit, far ahead of anything he had beheld in the State.

Dr. C. H. V. Massey, near Massey's Cross Roads, has also a pear orchard of several thousand trees, but the blight was playing sad havoc in almost every orchard, and pear growers felt dispirited.

List of Peaches Usually Planted.

Peach growers now usually choose a list like the following, named in the order in which they ripen: Troths' Early, Large Early York, Crawford's Early, Crawford's Late, Reeves' Favorite, Ward's Late Free, Oldmixon Free, and Beers' Smock. The finest of all the peaches are the Crawfords and Oldmixon, the last perhaps the choicest in flavor. The Susquehanna is the largest grown, but not productive, single peaches often measuring nine to ten inches in circumference.

The Hale's Early is now very unpopular among the growers, on account of its tendency to rot on the trees before ripening, and is too tender for shipping. Mr. Quinn, to whom we are indebted for notes of this excursion, states that fully *one million* more trees will be in bearing next year over those of this year, and low prices may be expected to continue for several years to come, and the lot of the peach growers both very hard and unprofitable. The net prices of peaches this year range only from ten to twenty-five cents per basket. All the excursionists unite in expressions of delight at the beauty of the country visited. The farms are large, and as the land is level, or slightly rolling and uneven, orchards reach on every side, and the country has one uniform handsome appearance.

The system of hedges of the Peninsula naturally adds to the beauty of the farm, and excites the admiration of the visitor. During the ride of one hundred and forty miles in their carriages, the excursionists saw more than thirty miles of Osage hedges, either facing the road or dividing lines for one farm from another, forming at four years old not only fences of great size, but of utility, for they are completely impenetrable by cattle or pigs.

Fruit culture in Delaware is on a more colossal scale than our Northern readers have any possible idea of, yet it will be seen that like fruit grown everywhere, there are discouragements at almost every step. Still, like all occupations, after good lively competition, fruit growing becomes at last a settled occupation, and after "fevers" are over, there is a permanency to the trade, and a healthy increase in demand year after year.

Editorial Notes.

Fall Campaign. Reduction of Terms. Keep Pushing Things.

Our offer of three months for thirty cents, as a trial trip, we again renew for the last three months of this year. Send in the names by the thousand.

After December 1st, our Subscription terms per year will be reduced to $2, if paid strictly in advance before February 1st, next.

Our Club Terms are also reduced, and are now so favorable that anyone can get up a club easily, anywhere. See new Club List, in advertising pages.

Watering Newly Set Trees.

Care should be taken not to water too much A fruit grower once to our knowledge, when planting a row of trees, used water too freely—by the buckets full. During the night the temperature changed, the thermometer fell to below freezing point, and the wet ground was entirely frozen, injuring the trees and roots as much as if they had been severely scalded. Trees should never be water-soaked, and until the leaves begin to form, they never need much water. The *Country Gentleman* in discussing this point, says judiciously:

"When covered with foliage, a tree pumps water out of the soil and dissipates it in the air at least twenty times faster than bare branches. Some young trees, and especially pear trees, often remain fresh and alive for several weeks, without opening leaves; and in such a case, or when the stem is slightly shriveled, nothing is better than to tie a little long straw around it, and wet this straw daily. The moisture is absorbed precisely where it is wanted, at the bark; and young trees that appeared hopeless in condition have thus been restored to vigorous growth in a few weeks. As a general rule, never water the roots of young trees, but depend upon maintaining the moisture of soil by a clean mellow surface; and if necessary at midsummer by mulching. Watering gives at best an intermitting supply, hardens or crusts the surface, and commonly does more harm than good."

Grafting Soft-wooded Bedding Plants.

Quite a number of desirable curiosities were shown us lately in the form of grafted Coleus. On one upright plant of the ——— Coleus there were grafted three other varieties: the Setting Sun, Her Majesty, and Verschæffeltii, forming a curious yet splendid constellation of colors and variegated leaves. One other plant was mentioned to us as having eighteen grafts of all possible varieties on one stalk; but we did not see it—the other we did see. The Achyranthus Gilsoni has been grafted in the way upon the Lindeni, and formed another queer compound of colors; odd, yet pretty. Various geraniums have been so grafted, and the combination of colors was admirable. This system of grafting flowering stems of fancy colors from one gera-

nium on to another, or of any Coleus, Achyranthus, etc., will not fail to be popular, and lead to many striking displays.

What could be more odd, yet beautiful, to see on the exhibition stand a geranium with flowers, here and there, of the Gen. Grant, Warrior, Madame Lemoine and half a dozen others for contrast, and then leaves of the Mountain of Snow, or Mrs. Pollock intermingled here and there?

It *can be done;* we have seen it successfully, and the credit is due to Graves, Selover, Willard & Co., Geneva, N. Y., for the first display in our knowledge of plants thus treated, which was done at the fair of Saratoga Springs, Sept. 7, last.

Fall Setting of Small Fruits.

The only small fruits we can recommend for fall planting are blackberries and black cap raspberries.

Plow double furrows six feet apart, drop the roots or tips every three or four feet apart, and apply to each hill a good shovelful of manure. No fruit can be expected the next year worthy to be called a crop; even the second year it will be but one-half or two-thirds of a full crop. In the third year the bed will be in prime order for heavy successive crops. If the soil is in a cold climate, it would be well to mulch the plant each winter, and in summer, if dry, do the same when fruit is ripening.

Results of Strawberry Culture by Rows or Hills.

There are advocates of success of strawberry culture under three systems:

1. To get but one or two crops from the ground, allowing the vines to run broadcast, and then plow the bed under, starting a new bed each year. It is claimed that it is cheaper to do this, than expend too much labor in keeping to the hill or row system.

2. The row system, by which the plants are permitted to run in the row, while the ground between is kept constantly cultivated by horse power and kept free from weeds; the rows grow a little larger each year, and the third year the old rows are plowed in, and new rows are set out in the vacant soil between the old rows, hitherto kept cultivated.

3. Entirely in hills: this is garden culture properly, and requires the very best attention—manuring, mulching, and careful preparation of the ground. It is more costly, but pays better; still a cultivator can not care for as much ground as on either of the other two systems.

No association of fruit growers have agreed on any practice as definitely the best, although the majority of best cultivators uniformly advise the hill system. It is the one we practice, and which is the best conducive to the long life, health and productiveness of the strawberry beds. It is *more easy* to try the other two, yet when once a cultivator has spent $200 or $300 in preparation of his bed, he wishes to feel it is permanent for some length of time, and few care to repeat the same process every year or two on the same ground. It makes strawberry growing almost too costly in the end. We think strawberry beds should be made as permanent as possible, and give as little charge or occasion for expense in renewal as possible; still the habits of growth require some renewal every few years.

We observe a strawberry grower, in the *Small Fruit Recorder*, has reported the results of experiments in the hill system and matted row system: 1,500 plants of the Wilson's Albany were kept in hills, the runners pulled off every time they appeared; the other 1,500 were cultivated on the "*matted row*" system, thoroughly hoed and cultivated. In the middle of November, both beds were mulched; half of them were mulched with straw, one-quarter with coarse stable manure, and one-quarter were not mulched at all. The results are as follows: Those kept in hills and mulched with straw, were decidedly the largest and finest berries; those kept in rows and mulched with straw were also very fine; those in beds and mulched with

manure, did not yield more than half as many berries, and of an inferior quality, as those mulched with straw; and those that were not mulched at all, were hardly worth picking.

Although those kept in hills yielded the best berries, which might be called extra, yet as the difference of price was not enough extra, it was found that more money was realized from the *rows mulched with straw*, while those kept in hills cost enough less for labor and cultivation to more than counterbalance the difference; so that the verdict of *profit* proved to be in favor of the *hill system* as yielding better fruit at less cost.

Those kept in hills did not begin to ripen until two or three days after the other, and lasted continuously for a long time, while those grown in *rows* and mulched the same, were all dried up.

Catawissa Raspberry.

The best cultivators are now unanimously recommending to cut all plants of this variety in the spring down to about two feet, and apply plenty of manure. Thus treated, they will continue productive for any number of years—a splendid family variety.

Grimes Golden.

An Ohio cultivator has about one hundred varieties of apples, all the best kind, yet Grimes Golden is at the head of the list for hardiness, fairness of fruit, uniform bearing and superior quality. The orchard has been twenty-one years planted, and for sixteen years the Grimes has not failed to give an annual crop of good size fruit.

Soil for the Flemish Beauty.

The *Western Pomologist* says that for the West it is peculiarly fitted to a lightish soil, for the finest fruit grown in Iowa and Kansas has been grown on a light sandy loam.

Clapp's Favorite.

Our opinion of this pear is two-sided. As a tree it is superb—cannot possibly ask for anything more vigorous or perfect in form. As a market fruit we dislike it. It ripens and rots too quickly. The ordinary cultivator, who waits for the fruit to ripen on the tree, will find it begins to rot before it is a day plucked, and, if gathered before ripe, it will rot almost as soon as it is fit to eat.

Doolittle Best Yet.

The *Western Pomologist* says the Doolittle is still ahead in the West, the best variety yet for general cultivation; the Mammoth Cluster and Miami in comparison with it being still in the back ground.

Purple Cane is the highest flavored berry, but too small and tender for market.

California Fruit for the East.

The amount of California fruit shipped East last year to Utah, Colorado, Chicago, etc., was 2,000 tons.

The Biggest Fruit Trees in the United States.

The inhabitants of San Buenaventure, California, claim to have the largest pear, palm, English walnut and olive trees in the United States.

In the old Mission orchard are three date palms seven to nine feet in circumference, and from forty to fifty feet high. Pear trees eight feet in circumference, and olives seven. Three English walnuts, the largest six feet in circumference, about thirty feet in height, and a spread of top of sixty feet.

The Big Grape was measured by Dr. Logan, who states in the *Rural Press*, he found it to be four feet three inches in circumference, four and a half feet from the ground at the point of beginning of the first branch. This vine, still healthy and

vigorous, was planted from a cutting some forty odd years ago, and its branches now spread over a trellis seventy-six feet long and sixty-one feet wide, which they completely cover. It produces from 12,000 to 15,000 pounds of fruit annually, some of the clusters weighing five pounds.

An Enterprising Nursery Firm.

The White Springs farm, formerly belonging to James O. Sheldon, and located near Geneva, has been purchased by the nursery firm of Nicholas & Newson. It contains 300 acres of the most fertile land, suitable for nursery purposes, and is worth not far from $90,000.

This enterprising firm are still young in the business, having commenced but five years ago. They already have 150 acres of nursery land, and in past years have been quite successful in their sales. Some idea of their trade is gained when it is mentioned that this summer they have budded 300,000 apple and 200,000 pear trees, with other stocks in same proportion.

Too Early.

"*Now and then*," writes the *Rural New Yorker*, that "it is becoming pretty well known that certain fruits can be sent to market sooner than wanted at profitable prices to growers. The area devoted to fruit is now so large that fruit from one section often arrives before it is wanted, and varieties are so interwoven and mixed up, that we have too many at one time in our markets to make any of them profitable."

Cutting off Strawberry Leaves.

Still another champion appears in behalf of removing the old leaves of strawberry vines. A subscriber lately asked the *Rural New Yorker* if it was safe to cut off these leaves, and in general soliciting the opinion of the readers as to defoliating strawberry plants. To which another subscriber, M. O. Bowen replies:

I keep from one-eighth to one-fourth of an acre in strawberries. My patch is universally admired by every one that sees it. I have heard but one expression in regard to it and that is they never saw better and they never saw as good. In the first place it is all important that we have the right kind of soil in order to grow a good crop. Mine is a clay loam, and I think for vigorous plants, productiveness and flavor of fruit this is the best.

I set my plants twenty-four by thirty-four inches apart and keep them in hills. After the fruit is all gathered I take a sharp sickle and cut off all the runners and the old foliage and stems, being careful not to disturb the crown or new leaves that have started. Then I go through them with a hoe, clean out all the weeds, at the same time pulling out all weeds and grass that may be in the hills. I leave all the foliage on the ground.

My advice to Mr. Calkins is never to spade or fork the ground among strawberries, for in doing so he will disturb the roots and shorten the life of the plants. It matters not how compact the ground, if they are kept clear of weeds and grass. The above treatment has enabled me to pick this season from less than one-quarter of an acre forty bushels of berries, notwithstanding the frost killed very many of the first blossoms. Varieties raised are Wilson's Albany and Jucunda.

Raisins from California Grapes.

F. G. Jeffers, of Visalia, California, has experimented with raisin making from the foreign grapes of California.

"I gathered and spread on scaffolds in the sun, about the middle of September; after they are partly dry, I put loosely in large boxes under cover to finish drying; in about six weeks they were dry enough to box.

The *Rose of Peru* averaged this year about forty pounds to the vine; it took three pounds of green grapes to make one of dry. The *Fi her Zagos* averaged twenty-five

pounds to the vine, and it also took three pounds of green to make one of dry. The Muscat, of Alexandria, averaged ten pounds to the vine, and took only two pounds to make one of dry.

The Martha Grape.

Boxes of this new white grape have been received in New York, and sold in our Broadway fruit stores. Mr. Knox's label appears on most of the finer boxes, usually of the three-pound size. The color of the grape is fine, as white as the Rebecca, berries about the same size, and make a fine appearance, but flavor is very sweet and musky, more so than the Concord or Hartford Prolific. The Martha is a fair producer, but we look for something still better in quality.

The Mount Vernon Pear.

This is one of the most vigorous growing varieties we have ever seen. Grafts inserted last spring, have made an extraordinary growth. We have great hopes that it will prove what we have long wanted, our best winter pear. Will any one favor us with opinions of quality, color, ripening and productiveness?

Pears for Delaware and the South.

The Tribune coincides with our previously expressed opinion, that it is not advisable to plant those varieties of pears which ripen with peaches. *Late varieties* will be far more profitable. The Beurre D'Anjou and Lawrence are recommended in preference to the Bartlett, also the Beurre Bosc, which is not as much grown as its merits deserve. "In growth and bearing it is quite similar to the Beurre D'Anjou. The tree requires age before producing much fruit, but when it does begin it will grow better each year." We need more good late varieties.

Pruning or Not.

There are examples in abundance to support the efficiency of systematic pruning, and again there are frequent instances to support those disciples of nature who believe a tree is better if left to itself, and not pruned at all, except to remove injured or diseased branches. Such differences of experience render it impossible to lay down any fixed law in horticulture as to pruning. We have an example in point: Dr. J. Stayman, of Kansas, has an orchard conducted on the *natural system*, which is left by nature to its own tendencies, and untouched by the pruning knife. He says, "after more than forty years of careful observation in pruning for various purposes, suggested by different authors, the last ten being devoted to a practical test and comparison of the relative value of pruning, I have become fully convinced that pruning is in no instance of any benefit, but in most cases an absolute and irreparable injury. Instead of pruning for form, vigor, health and transplanting, they shall only be pruned as a remedial agent in disease, in overcoming injuries and removing unnatural obstructions and deformities."

The Doctor does not believe that a tree should be pruned either in the nursery or orchard, or at the time of setting out and transplanting, nor at any subsequent time.

The Doctor takes a radical position opposed to all the usual practices of horticulture, and, like the "*grass theory of cultivation*," is a pill not to be heartily swallowed by the rest of the fraternity.

The Doctor's orchard is grown in grass, and is not pruned; the trees grow in all possible direction, unshaped and uncontrolled, and yet are loaded with fruit year after year—the orchard is a great success.

Yet we advise no one heartily to do as he does. His soil is favorable for fruit culture; the climate is a great aid. Trees that *are* pruned are doing just as well as his.

In another soil and another climate, not as favorable for fruit as his (Kansas), we feel confident his system would be productive of total failure. In Delaware we have seen orchards unpruned that never were successful. We have in mind now a row of

pear trees which have never been touched since they were put out, ten years ago, yet have never borne a particle of fruit, while other trees of the same variety (Bartlett) pruned judiciously, have yielded regularly.

The finest pear orchard near New York, which yielded $10,000 last year, is a monument in honor of judicious pruning. Mr. William Saunders, of Washington, who formerly believed as Dr. Stayman did, that fruit trees should go unpruned, has now, we believe, changed his opinion and practice, and considers pruning, more or little as the case may need, one of the necessities of fruit culture.

Remember we have no sympathy for indiscriminate pruners, who cut at random, or by the wholesale, in every part of the tree. A good pruner will take as much care and time in selecting the right branch, and how much of it to trim off, as a cook would do in fashioning the outside proportions of a handsome cake.

In some portions of the West, where growth is too rank, the grass theory can for a time be brought into requisition with good results. We do not say but that it may occasionally be useful, and so in some soils which have just the right food for the tree, so it will grow without much urging, and produce good crops naturally, the orchard may very properly go *without* pruning for a long series of years. On a limestone soil nearly all kinds of fruit will do well even if neglected.

But for the largest expanse of territory, and among the largest class of cultivators there are only *two orthodox* systems:

1st. Prune your trees regularly in summer to develop the fruit spurs, and in winter for wood.

2nd. Cultivate your orchard, but allow no other crops therein, and mulch occasionally. Other practices than these, or other advice, must have an unwholesome effect.

Downing's Selected Fruits of America.

This is a condensation from the larger work of Mr. Downing's, which is of too large a size and high price for most persons of moderate means.

The new volume has about half the number of pages of the other, and contains descriptions of 200 varieties of our most popular kinds of apples, and other fruits in same proportion. To the general cultivator it is as good for reference as the other. The price is $2 50. We are glad to see that the price of the large volume has been reduced from $8 to $5. At this price it is the cheapest book published.

Herstine and Saunders Raspberries.

The reports of the committees of last year and this year are before the public; but committees are expected generally beforehand, owing to the courtesies they receive, to give a good word for their patrons. The best way to judge a fruit is to go alone, and be under no obligations. If *our* opinion is desired, we would frankly admit, from the little we have seen, that the Herstine *is* a good variety, and equal to what has been *modestly* (not extravagantly) claimed for it—a good productive, large, red raspberry, growing well on light or heavy soils. The *Saunders* is *not*, in our opinion, equal to the necessary test for market purposes; is somewhat of the same character as the Brinckles Orange; choice, but not over vigorous or productive—a good amateur variety.

Fall Planting of Fruit Trees.

A point now well settled is, we think, an admirable one for both cultivators and the trade, *i. e.*, the fall is the best time for tree planting. If for no other consideration than that of *plenty of time for careful handling*, we would esteem it a point well worth gaining. The spring often opens in a hurry, the nurseryman is often caught, and cannot hurry trees off fast enough; and some one is always behindhand with his order till the last moment, and then growls because his trees are started and putting forth leaves before he gets his order filled. Order early in the fall and plant when you have an abundance of time.

Horticultural Notes.

The Profits of Peaches.

To show what peaches have paid in past years, we quote the following figures from the note book of Mr. E. C. Fennimore, of Delaware. Mr. Fennimore has been one of the oldest and most successful growers of the State, and for many years he was unusually successful with his trees and crops when others failed; but this year, with many others, he has seen the time when they were grown and shipped in too large quantities, and actually sold at a loss. He sold—

In 1861.....	191	baskets bringing.....		$206 24
" 1862.....	1,893	"		868 35
" 1863.	18,423	"		15,051 81
" 1864.....	25,964	"		18,434 89
" 1865.....	22,124	"		23,070 25
" 1866.....	13,675	"		20,266 07
" 1867.....	27,500	"		18,551 40
" 1868.....	4,250	"		15,281 68
" 1869.....	34,000	"		14,464 27
" 1870.....	16,029	"		15,607 76
	164,050	baskets.		$150,811 80

Should we let Suckers Remain or Not on Fruit Trees.

We have always held the opposite opinion, and, with knife in hand, have whipped them off from every tree we could possibly reach; but recently a Delaware pear-grower called attention to a fact in his experience which gave a new idea. He says he permits all his suckers to remain down to the end of the growing season, *because they make the trunk more stocky*, and hence with young trees, less likely to be bent or blown about with the wind. It is a question to be discussed whether the loss of nourishment to the upper branches of the tree, by the maintenance of the miserable little sucker below is counterbalanced by the extra stockiness of the trunk. We think not. The tree needs all the opportunity for life and nourishment it can get. Suckers are like parasites, useless subsistants on the food that belongs to other branches. We think the only common sense mode is to permit the tree to carry no more branches than it can mature well, and remove all superfluous shoots. The best way to avoid all trouble with suckers is to cut them off as soon as they first appear. If delayed, the task of their removal will be greatly increased, and the risk of injury to the tree become greater.

A cultivator states, in the *Country Gentleman*, the worst thing that can be done is cutting the suckers off with a knife in such a way that short stubs are left to sprout a second time. If the sprouts are small or only one season's growth, they can be easily and well removed by grasping them one at a time with both hands, and then, with a stiff cowhide boot, place the foot next the tree and on the sucker, and one or two quick jerks will separate it to the base. If this is impracticable, take a small gouge and mallet and cut them off closely. When it is thoroughly done, they will not be likely to reappear, and the few that appear subsequently are easily got rid of. A neatly kept, clean orchard is better and more profitable in every way than one infested with suckers, weeds, grass and bushes."

Canning Fruit.

If it were not for the fortuitous opening of canning factories, to relieve our farms and markets of surplus fruit, we fear fruit culture would be a very unsatisfactory occupation. One of the largest factories of the Delaware Peninsula is located at Lebanon, Delaware, the property of Collins, Geddes & Co. The building is 175 feet long and 50 feet wide. The establishment contains six bath tubs for processing the

fruit, fourteen copper kettles for cooking tomatoes and making syrup, seats for 300 hands, there being 400 in all employed. During the present season the firm will put up over half a million cans of peaches, tomatoes, pears, strawberries and raspberries.

It requires 30,000 boxes to pack the fruit of a single season, and 200 barrels of sugar. Two thousand dollars are annually expended for labels, and a thousand dollars per week paid for labor during the canning season.

The canning factory of Richardson & Robbins at Dover, Delaware, is one of the very first ever erected, and bears at present the reputation of producing the very choicest quality of fruits, etc. During the fruit season forty to sixty hands are constantly employed, and the greatest care exercised in the selection and preparation of fruit for the cans. Specimens of their peaches, pears and potted meats we took with us on the Western editorial trip, which were of unexcelled quality. It is quite common now to find factories in every county in all our large peach growing districts of the United States; and soon we may expect to see one to every town. Nothing contributes so materially to the steadiness of the fruit markets as the presence of canning factories. Where they exist the grower may feel sure of either fair prices in market, or fair prices at home.

Mulching Again.

An Indiana cultivator says: "After an observation of ten years past, I am confirmed in the belief that it is poor economy to try to raise strawberries without mulching. A good mulch is a policy of insurance against dry weather, while in all seasons, wet or dry, it keeps the fruit clean, as well as prevents the growth of weeds. On the Weinbergher farm, near Indianapolis, I noticed the strawberries producing a good paying crop, notwithstanding it was claimed that the frost had materially lessened the result. The entire crop was heavily mulched, with perhaps the exception of a small patch, here and there, that was allowed to run in matted rows. The latter yielded comparatively no fruit, while the former in single hills and well mulched, would pay (I should judge) good dividends. In very favorable situations and seasons, I have raised good crops without mulch; but such culture is unreliable, and in the long run unprofitable."

Turn to the article we give in some of our previous pages, where we give the success of a grape-grower who persisted in mulching his vineyard with straw. Has any one failed who applied mulching? Let us hear from him.

Davidson's Thornless.

Quite a number of growers are complaining this season of the smallness of the berry of the Davidson's thornless raspberry. Perhaps soils and seasons do change its size, but on lands with clayey texture, well drained, it excelled in size and productiveness anything we have ever known.

Double Balsams.

I had such splendid success with my balsams this year that I must record my experience for the benefit of others. I started seeds in a cigar box placed in a south window; when the seedlings had formed the second leaves, transplanted into thumb pots, kept them there till May, when the weather had become settled and the ground warm, then they were planted out. As the plants grew up, I broke off all the side branches, allowing only the main stalk to grow. June tenth they began to bloom, and grew rapidly until three feet high, when the stalks were perfect masses of flowers, so thickly set that nothing could be seen but leaves and flowers. Such a blaze of scarlet blotched with white, and crimson and purple, and white tinged with a faint bluish, and other different shades! Many were double, and fit rivals for the queenly roses. It is a pity they have such short stems. The best way to display them is on a plate or saucer, on a green bed of French Marigold, or some other plant with deli-

cate, spray-like foliage. Pruning the plants in the above manner causes them to bloom earlier, and in much greater abundance. A few should be set out every two or three weeks for succession, as when they began to ripen seeds, the plants lose much of their beauty, and should be cut off and thrown away.

To occupy the spacce thus left vacant in the flower border, plant, at the time of setting the balsams, a few seeds of *Abronia umbellata*, a handsome trailing plant, with trusses of very sweet scented flowers, of rosy lilac color, resembling the Verbena in shape, but not so large. This will run over and occupy the ground and be ready to bloom about the time the old balsam stalks are cut away. It is best to start the seeds of Abronia in a warm window or a hot-bed, if one has that convenience in the spring. The seeds must be separated from the hard husks in which they grow, else they will rot.—*Iowa Homestead.*

Laurel-Leaved Willow.

It is a matter of some surprise that this very beautiful willow is not more generally grown. It is perfectly hardy, easily propagated, even from cuttings, and seldom dies from removal if properly transplanted. The laurel-leaved willow bears the pruning-knife or shears well, and can be kept as a low dwarf bush in garden borders, or grown as a medium sized tree on the lawn. It is, when grown as a bush, from four to eight feet high, that the dark-green, polished leaves, flashing in the bright sunlight, reveal its incomparable beauty. No laurel leaf is darker or more glossy, and its slender branches permit its being swayed by the wind, and revealing its beauty. When grown as a tree, and bearing seed, its leaves are not so dark, or so highly polished, yet there are few, if any trees with so handsome heads, and trim, inviting appearance for the lawn.—*American Rural Home.*

Arbor Vitæ Screens.

Dr. Hull writes thus in the *Prairie Farmer:* The finest effect we recollect ever to have seen, in growing a hedge of the arbor vitæ, was one in which the plants were set two feet apart, and, after they had grown one year, the ground was then heavily mulched—say three inches deep—with old horse manure and saw-dust, in about equal parts, and small trenches were opened on each side, about twelve inches out, and all of the branches which were trailing on the ground, were bent and buried in the earth, with the ends turned up. Each branch so buried became rooted, forming, as it were, a separate tree. On such trees as had lost their trailing branches, those nearest the ground were bent down into the trenches, and held in place by wooden pins or forked sticks. A mulch like that under the trees was then spread one foot wide outside the rows of those buried branches, which kept the ground moist, and caused all to emit roots and become, as it were, separate trees. It would hardly be possible, by any amount of trimming, to make trees so thick or impervious as by this method, nor do we recollect to have seen so fine a pyramidal screen secured by any other means.

Crown Imperials.

These plants are well deserving of being extensively cultivated, for, being among the earliest tall flowers of spring, they make a fine appearance at a season when such flowers are much wanted to decorate the flower garden. Dwarf flowering plants we have in abundance at that season, but tall flowering plants are not so plentiful.

Besides, the beauty of the plants, and the splendor of the magnificent pendulous flowers, should ever secure them a place in the flower garden. The stalk rises to the height of four feet or upwards, and is garnished two-thirds of the length on every side with long, narrow leaves, ending in points which are smooth and entire. The upper part of the stalk is naked for a foot of its length; then the flowers come out all round the stalk upon short footstalks which turn downward, and each sustain

one large flower. Above these rises a spreading tuft of green leaves, which are erect, the whole giving the plant a striking appearance.

They may be propagated by seeds or offsets from the root, the latter being the method generally adopted.

The roots may remain the year round in the soil, and need only be transplanted every three or four years. When planted in mixed borders they should not be planted too near to other flowers. They should be planted six inches deep at least, especially the stronger roots. They delight in a light soil, not too wet nor very full of dung. When planted in mixed borders they should always be kept properly labelled, otherwise the roots may be injured when the borders are being dug and cleaned.—*Floral World.*

The Grape Culturist.

After two years' publication, this has been suspended, and is now merged into *Colman's Rural World.* A *grape and wine department* has been opened in that journal, and George Husmann and Dr. Spalding are still to remain in active connection with it.

The Madeira Vine.

The *Boston Cultivator*, in a notice of this charming creeper, reminds the ladies that its roots must be taken up, and preserved through the winter away from frost. "It is a most elegant and beautiful climbing plant, a rapid grower, when planted in rich loam, growing, under favorable circumstances, forty feet in season, and is, therefore, an admirable and desirable plant for covering an arbor, or a screen, or the shading of windows, where climbers are wanted. They may also be cultivated in pots under windows, affording a beautiful shading. The foliage is dark and glossy, and its white flowers numerous and fragrant."

Strawberries.

A small fruit-grower says, that in order to keep two acres of strawberries in perfect bearing condition, it is necessary that one acre should be planted each year, and one acre ploughed up each year after the third planting.

A Pretty Tree Bower.

The editor of *The Gardener's Monthly* says: Recently we saw a very pretty thing formed out of a half-a-dozen *Japan Catalpa*—Catalpa Kœmpferi. These seem to grow only from fifteen to twenty feet high, and the branches form a dense mass overhead, appearing in leaf as if the whole surface had been sheared. When not too closely confined, the whole stem pushes out leafy branches. A half-dozen of these set out by themselves, and trained up to single stems, will make one uniform mass of foliage if left to itself; and gothic arches, or arches of any form, can be cut between each pair of trees. The leaves around each tree stem can be left two or three feet wide if desired—and the effect will be unique.

Tuberoses.

The Agriculturist mentions a new tuberose growing only eighteen inches high, and producing flowers double the usual size. If so, it is quite desirable.

The Best Market Pears.

If a farmer were to say to us that he was about to plant twenty-five pear trees for profit—that is, for market purposes—and that he desired a suggestion as to the varieties and number of each variety he should set out, we would have no hesitation in giving him the following list: Two Early Catharine, two Giffard, four summer Julienne, five Manning's Elizabeth, three Bartlett, five Seckel, and four Lawrence. These ripen in the order they are placed.

It appears that these varieties do well everywhere, and are, therefore, particularly adapted to general cultivation. They are very productive, the trees hardy and vig-

orous in their growth, and the fruit generally perfect. The Early Catharine and Seckel are not early bearers, but when they once commence, they seldom fail in giving an abundant crop.

In purchasing the trees, be careful to select good specimens; have them taken up with all the roots possible; transplant with every attention; stake firmly, placing the stakes at an angle, with the head to the northeast; keep the ground stirred two or three feet from the stem all around; and allow no cattle to disturb them.—*Germantown Telegraph.*

List of Choice Gladiolus.

This list is recommended by *American Rural Home:*

Dr. Lindley.—Flowers large, of a light rose color; edges of the petals striped with carmine.

Duc de Malakoff.—Orange scarlet, striped with pale yellow.

Imperatrice Eugenie.—White, striped with violet red inside, and lilac outside; this is a superb variety.

James Veitch.—Bright vermillion, stained with violet.

Lord Byron.—Fiery scarlet, with pure white stain.

Meyerbeer.—Another superb variety; flowers brilliant red, stained with amaranth.

Mr. E. Brongniart.—Large and finely formed; rose striped with carmine; petals creamy white inside.

Shakespeare.—White, striped with rosy carmine; one of the finest varieties.

Cultivators will remember that as soon as the foliage turns yellow in the fall, the bulbs must be taken up, well dried in the sun, placed carefully in paper bags, and kept in a dry place until next spring.

Early Rose in England.

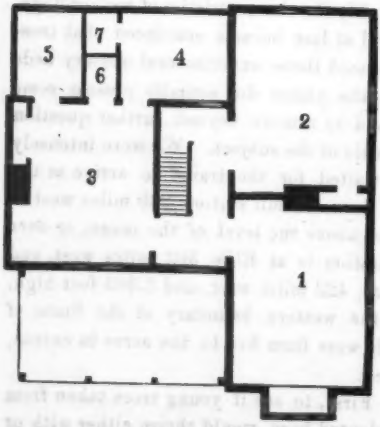
Thos. Rivers, the well-known English nurseryman, writes to the *London Journal of Horticulture* that he considers the Early Rose potato as raised in that country, "watery, nasty and uneatable." This was when dug for cooking in July; he tried it again in September, when "on being cooked with great care they were found to, be harsh and dry, with a hard center, and a flavor perfectly original, but so unpleasant—nasty, according to our cook—that I gave them up for that year. The misnamed Early Goodrich came in with the Regents, but instead of being like that sort in flavor, the tubers were earthy, with a peculiar *un*earthy, and most disagreeable flavor."

Editorial Notice.

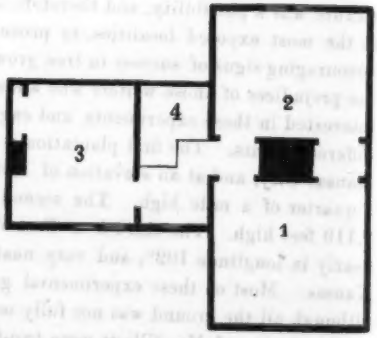
The Ladies', Floral Cabinet.

This new paper is devoted entirely to flowers for in-door ornament and out-door culture, as well as pictorial, home literature for the family circle. Its title head is an exquisite gem in wood engraving, and pronounced by artists the finest in the world. The entire number is illustrated profusely with engravings, and contains a large variety of popular matter, devoted to home interests. It is the first and only paper in America devoted specially to flower culture, and as it is supported by a more than customary share of business facilities and favorable patronage, the public may expect it will be a permanent and welcome addition to our list of rural and family periodicals. Issued monthly at the low price of seventy-five cents per year, from the office of *The Horticulturist,* 5 Beekman street. Speciman copies ten cents.

Design for a Farmer's Cottage.



First Floor.



Second Floor.